

Notice of Allowability	Application No.	Applicant(s)	
	10/072,941	HARRIS, ROBERT MICHAEL	
	Examiner	Art Unit	
	Sonny TRINH	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 02/12/02.
2. ☒ The allowed claim(s) is/are 1-60, claims 8-16, 33-48 have been re-numbered to 15-16, 8-14, 31-60 respectively.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 09/28/04.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Examiner's Amendment

2. The application has been amended as follows:

In the **abstract**:

The abstract on page 88 of the specification has been replaced with the following abstract:

--" A method of intermediate frequency (i.f.) planning for radio transmitters and receivers involves predicting which i.f. or i.f. range will result in spurious emissions to or response from one or more "avoidance bands" being sources of unwanted signals or frequency bands closed to transmission, whereby to choose an i.f. or i.f. band which minimises such i.f. bands. The method may be carried out by computer software which may be embedded in a transmitter/receiver having means for varying its i.f. "--

This Examiner's amendment was necessary to make the abstract conform to the USPTO standard practice.

A telephone call was placed to Mr. Michael Forgarty (Reg. No. **36,139**) on 09/28/2004 to get the authorization.

(End of Examiner's Amendment)

Drawings

3. **Figure 1** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Allowable Subject Matter

4. **Claims 1-60** are allowed.

The following is an examiner's statement of reasons for allowance:

The instant application is directed to an non-obvious improvement over the invention described in Patent Number U.S. 5,752,174 to Matai et al. and in Patent Number 5,689,819 to Nishimura et al.

In the "174" patent, Matai discloses a radio selective calling receiver having first and second local oscillators switchable between "high mix" and "low mix" to achieve a combination that does not result in interference between the two oscillators for the received call signal frequency. Here the intermediate frequency itself is unchanged, and again the alteration of local oscillator configuration is done in response to a particular

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call frequency. No attempt is suggested to design out such interference by considering the whole of the tuning range when selecting the intermediate frequency.

In the "819" patent, Nishimura discloses a transmitter-receiver circuit designed to mitigate interference between the transmitting and receiving sides. Only one spurious mechanism is taken into account. Furthermore there is no suggestion in this disclosure of determining a range of unsuitable intermediate frequencies for a tuning range rather than for a particular frequency to which the radio is tuned.

In contrast to the known methods described above, in the method according to the invention the frequencies of spurious emissions are predicted and the receiver/transmitter i.f. or local oscillator frequency (or frequency range for hybrid/block conversion) can then be positively selected to avoid spurious emissions in the avoidance band which are present in all independent claims 1, 8, 24, and 31 (program code for a receiver, program code for a transmitter, receiver apparatus, and transmitter apparatus).

Claims 2-16 are allowed by virtue of their dependency on claim 1.

Claims 9, 17-23 are allowed by virtue of their dependency on claim 8.

Claims 25-33, 37-42, 49-60 are allowed by virtue of their dependency on claim 24.

Claims 32, 34, 43-48 are allowed by virtue of their dependency on claim 31.

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CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonny TRINH whose telephone number is 703-305-1961. The examiner can normally be reached on Monday-Thursday and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed URBAN can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SONNY TRINH
PRIMARY EXAMINER

28-Sep-04